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Argonne's Center for Nanoscale Materials

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The Center for Nanoscale Materials (CNM) at Argonne National Laboratory is a premier user facility providing expertise, instruments, and infrastructure for interdisciplinary nanoscience and nanotechnology research. The CNM user program provides access to equipment and technical expertise and is open to academia, industry, government agencies, and research institutes worldwide. There are three calls for proposals per year with deadlines on the APS cycle. No charge is assessed for work that is intended for the public domain. Access is also available on a cost-recovery basis for proprietary research that is not intended for publication.

The CNM's main research portfolio is organized around six key areas: (a) Electronic & Magnetic Materials & Devices, (b) Nanobio Interfaces, (c) Nanofabrication & Devices, (d) Nanophotonics, (e) Theory & Modeling, and (f) X-ray Microscopy. The main facilities include scanning probes, materials synthesis, computational nanoscience, and a cleanroom. The hard x-ray nanoprobe facility at sector 26 is jointly managed by the CNM and APS. It is a next-generation hard x-ray microscopy and x-ray imaging beamline with the highest spatial resolution in the hard x-ray range. These capabilities are of use to the broader nanoscience community in studying nanomaterials and nanostructures, particularly for embedded structures. It's key capabilities are: (a) scanning probe x-ray diffraction microscopy, (b) scanning probe x-ray fluorescence microscopy, and (c) full-field two-dimensional transmission imaging and tomography.